

L Number	Hits	Search Text	DB	Time stamp
1	1425	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 18:11
2	702	(((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:29
3	679	(((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:31
4	438	((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:32
5	218	((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:34

6	202	<p>(((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:37
7	100	<p>(((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4 and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:39

8	93	(((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:41
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9	90	((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same (((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub."2 or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:43
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10	72	<p>((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub."?) same (high adj density adj plasma or "HDP")) or (oxide or "O.sub."?) same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub."?) same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub."2 or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") same thick\$4</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:47
11	2914	430/312,314,316-317.ccls.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:50
12	8781	438/584,622,624,637-638,700,702,723-724.ccls	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:50

15	234	<p>((dual adj damascene).ti,ab. and (etch\$3 adj stop\$4 same (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8))) not (((((((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") same thick\$4) not ((430/312,314,316-317.ccls. or 438/584,622,624,637-638,700,702,723-724.ccls.) and (dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3)) not (((((((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj</p>	<p>USPAT; US-PGPUB; EPO; JPO; IBM_TDB</p>	2004/07/22 18:16
Search History	7/22/04	<p>22/06/04 C:\APPS\east\workspace\22/06/04</p>	<p>22/06/04 C:\APPS\east\workspace\22/06/04</p>	<p>22/06/04 C:\APPS\east\workspace\22/06/04</p>

-	2669	430/312,314,316-317.ccls.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:20
-	7866	438/584,622,624,637-638,700,702,723-724.ccls	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:20
-	1913	dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:21
-	10406	430/312,314,316-317.ccls. or 438/584,622,624,637-638,700,702,723-724.ccls	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2003/09/13 09:31
-	723	(430/312,314,316-317.ccls. or 438/584,622,624,637-638,700,702,723-724.ccls and (dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3) adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2003/09/13 09:31
-	1139	(((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 07:59
-	550	(((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:01
-	527	(((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:03
-	346	((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:04
-	179	((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:05

-	168	<p>(((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:08
-	84	<p>(((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4 and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:09

-	77	((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same (((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:12
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-	75	<p>(((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:14
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-	59	<p> ((((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same (((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") same thick\$4 </p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:17
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-	681	((430/312,314,316-317.ccls. or 438/584,622,624,637-638,700,702,723-724.ccls and (dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3))) not (((((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub."?) same (high adj density adj plasma or "HDP")) or (oxide or "O.sub."?) same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same (((nitride or "N.sub."?) same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub."2 or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or "5660254P.N"romium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or "5660254P.N."Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "6686354P.N"thick\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:19
-	1	"5723387".PN.	USPAT; US-PGPUB	2003/09/15 18:02
-	1	"5739579".PN.	USPAT; US-PGPUB	2003/09/15 18:03
-	1	"5753967".PN.	USPAT; US-PGPUB	2003/09/15 18:03
-	1	"5935762".PN.	USPAT; US-PGPUB	2003/09/15 18:07
-	1	"5989997".PN.	USPAT; US-PGPUB	2003/09/15 18:07
-	1	"6001414".PN.	USPAT; US-PGPUB	2003/09/15 18:08
-	1	"6001733".PN.	USPAT; US-PGPUB	2003/09/15 18:08
-	1	"6025226".PN.	USPAT; US-PGPUB	2003/09/15 18:09
-	1	"6027994".PN.	USPAT; US-PGPUB	2003/09/15 18:09
-	1	"6027994".PN.	USPAT; US-PGPUB	2003/09/15 18:10
-	1	"6027994".PN.	USPAT; US-PGPUB	2003/09/15 18:10
-	1	"6027994".PN.	USPAT; US-PGPUB	2003/09/15 18:11
-	1	"6027994".PN.	USPAT; US-PGPUB	2003/09/15 18:11

-	1	"6028362".PN.	USPAT; US-PGPUB	2003/09/15 18:12
-	1	"6033977".PN.	USPAT; US-PGPUB	2003/09/15 18:12
-	1258	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:26
-	612	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:28
-	588	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:31
-	385	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:32
-	193	((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:33

-	181	<p>((((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconductor\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:36
-	90	<p>((((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconductor\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")</p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:38

-	83	<p> ((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4 </p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:40
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-	80	<p> ((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") </p>	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:42
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-	64	((((((((dual adj damascene) or ((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same ((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") same thick\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:46
-	2819	430/312,314,316-317.ccls.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:50
-	8322	438/584,622,624,637-638,700,702,723-724.ccls	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:50
-	2261	dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/02/19 08:22

	790	<p>(430/312,314,316-317.ccls. or 438/584,622,624,637-638,700,702,723-724.ccls and (dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3 mask\$3)) not (((((((((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3) same semiconduct\$4)).ti,ab.) and etch\$3 adj stop\$4 same (insulat\$3 or dielectric\$4)) and (via or hole or void or opening or trench\$3 or plug\$3) same (conduct\$4 or metal\$8)) and etch\$3 adj stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same (("USG" or oxide or "O.sub.?") same (high adj density adj plasma or "HDP")) or (oxide or "O.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD" or low adj pressure adj chemical adj vapor adj deposition or low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra adj ethyl adj ortho adj silicate or tetraethyl adj orto adj silicate or tetraethyl adj orthosilicate or tetra adj ethylorthosilicate or tetraethylorthosilicate or "TEOS")) and (insulat\$3 or dielectric) same thick\$4) and etch\$3 adj stop\$4 same (((nitride or "N.sub.?") same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj enhanced adj "CVD" or plasma adj "ECVD" or "PECVD")) or (silicon or "Si") adj oxynitride or siliconoxynitride or silicon adj "ON" or "SiON" or (tantalum or "Ta") adj oxide or "Ta.sub.2" adj "O.sub.5" or (zinc or "Zn") adj oxide or "Zn" adj "O.sub.2" or "ZnO" or (zirconium or "Zr") adj oxide or "Zr" adj "O.sub.2" or (hafnium or "Hf") adj oxide or "HfO" or (aluminum or "Al") adj oxide or "Al.sub.2" adj "O.sub.3")) and etch\$3 adj stop\$4 same thick\$4) and (conduct\$4 or metal\$8) same (aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromium or "Cr") same thick\$4)</p>	USPAT; JP-PGPUB; EPO; JPO; IBM_TDB	2004/07/22 17:51
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